countries, one hypothesis is that in Africa, acquisition of *H pylori* at an early age leads to immunological tolerance, resulting in a low grade gastritis which has little or no clinical relevance.

Inexplicable behaviour in Africa respecting health/ill-health is not unusual. In Soweto, coronary heart disease is very uncommon, in spite of high levels of plasma homocysteine.[5] Hip fracture in elderly African women is very uncommon despite, inter alia, a habitually low intake of calcium and losses of the element from high parity and long lactations.[6] In brief, an outwardly unfavourable parameter can have a widely varying degree of noxiousness.

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6-Mercaptopurine metabolism in Crohn's disease

EDITOR,—I have read with interest the article by Cuffari *et al* (*Gut* 1996;**39**:401–6) and do not feel that the conclusions of their study are supported by the results. The major aim of their study was to determine whether erythrocyte 6 mercaptopurine metabolite (6-TG) concentrations correlated with disease activity in patients with Crohn's disease. The authors state that their results show an inverse correlation ($r = -0.457$, $p < 0.05$) between 6-mercaptopurine nucleotide concentrations and the Harvey-Bradshaw index of disease activity. They conclude that these results support the immunosuppressive role of 6-TG metabolites and that measurement of concentrations are useful in the treatment of patients with inflammatory bowel disease (IBD). However, using the same statistical test as the authors, I could find no such correlation (0.322, $p > 0.05$) when I analysed the data presented in figure 4. The original data may not be represented accurately in graphical form and I would welcome the authors' comments clarifying this. I do not think that the study provides any evidence that measurement of 6-TG metabolites are useful in the management of patients with IBD.

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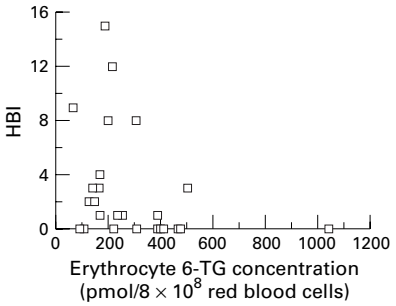
Reply

EDITOR,—We appreciate Dr Ballinger's interest in our study, and for her astutely pointing out that figure 4 from our paper inaccurately displayed our original data. Hence any results calculated directly from the graph would be erroneous. A corrected version of the graph is shown. The significant inverse correlation ($r = -0.457$, $p < 0.05$) between erythrocyte 6-TG concentrations and the patients' Harvey-Bradshaw index (HBI) of disease was obtained using a matrix calculation of the Spearman correlation coefficient, with Systat software. The parameters included in our matrix analysis were neutrophil, lymphocyte and total leucocyte counts, haemoglobin, serum albumin, erythrocyte 6-TG and 6-methylmercaptopurine concentrations. The only significant correlation to the HBI was observed for 6-TG concentrations. The level of significance ($p < 0.05$) was maintained even when the analysis did not compensate for the ties in HBI values.



Furthermore, we have re-calculated the Spearman correlation coefficient between HBI values and erythrocyte 6-TG values alone, using SPSS, Sigma Stat and Systat software programs. The r value obtained was −0.409, which yields a p value of 0.04 using a two tailed analysis. The r value obtained was the same when manually calculated for ties using the formula $\sum_{y2} = (N^3 - N)/12 - \sum T_y$, as described in a reference textbook on non-parametric statistics.[1]

Therefore, despite the limitation of interpreting data from 25 paediatric patients, our initial conclusion that 6-TG metabolite measurements are useful in the management of patients with IBD is firmly held. This conclusion is furthermore sustained by our analysis of almost 200 samples collected prospectively from adult and paediatric patients with IBD on long term 6-mercaptopurine. Using these metabolite studies, we have been able to identify clearly non-complying patients as well as those whose concentrations were in the toxic range, resulting in haematological and biochemical abnormalities.

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BOOK REVIEWS

Imaging of Abdominal and Pelvic Anatomy. Edited by Weill FS, Manco-Johnson ML. (Pp 384; illustrated; £99.00.) Edinburgh: Churchill Livingstone, 1997. ISBN 0-443-05238-7.

During the past 20 years the newer imaging techniques of ultrasound, computed tomography (CT) and magnetic resonance imaging (MRI) have significantly advanced the diagnosis and management of disorders of the abdomen and pelvis. It is essential to recognise normal anatomical structures when performing these techniques and interpreting the images that they provide. Details of normal anatomy are mostly provided in books and publications describing the different imaging techniques and in system related publications.

There is a place for a textbook devoted to detailed descriptions of the normal anatomical appearances as shown by all imaging methods used for investigating the abdomen and pelvis. The authors of this book have aimed to do this and in my opinion they have succeeded.

This book provides a detailed description of the anatomy and normal variations of abdominal and pelvic structures as shown by angiography, barium studies, CT, MRI, radionuclide imaging, and ultrasound, including endoluminal ultrasound. The lymph system is also demonstrated and lymphography is used, whenever possible, to show the detailed anatomy. The text is comprehensively illustrated and 24 pages of colour plates are included. Most of these are from *Gray's Anatomy* but there are also examples of colour Doppler.

This is an excellent textbook and in my opinion should become essential reading for anyone learning to perform or interpret abdominal imaging procedures.

D NOLAN

Gastrointestinal Infections. Edited by LaMont JT. (Pp 533; illustrated; US$125.00.) New York: Marcel Dekker Inc., 1997. ISBN 0-8247-0055-4.

Gastrointestinal Infections is a new multi-authored text which is aimed at a wide audience and is highly informative with regard to the biology of the microbes responsible for infection in the alimentary tract, the pathogenetic mechanisms by which they cause disease and the current recommendations for management. The book is unashamedly American, 22 of the 27 contributors coming from Boston or Baltimore.

Devising an overall structure for a book on gastrointestinal infection presents the editor with certain dilemmas. Should the book be organism based, organ based, or problem